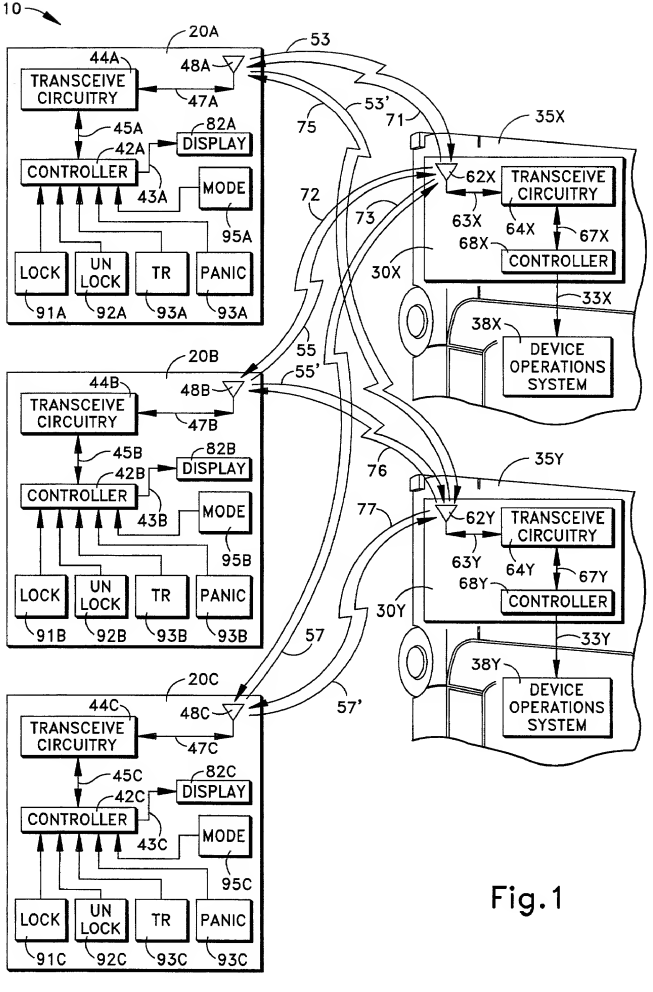
10
20A
44A
48A
53
TRANSCEIVE CIRCUITRY
47A
45A
82A
DISPLAY
42A
CONTROLLER
43A
MODE
95A
LOCK
UN LOCK
TR
PANIC
91A
92A
93A
93A
75
53'
71
35X
72
73
62X
TRANSCEIVE CIRCUITRY
63X
64X
67X
68X
CONTROLLER
30X
33X
38X
DEVICE OPERATIONS SYSTEM
20B
44B
48B
55
55'
TRANSCEIVE CIRCUITRY
47B
45B
82B
DISPLAY
42B
CONTROLLER
43B
MODE
95B
LOCK
UN LOCK
TR
PANIC
91B
92B
93B
93B
76
35Y
77
62Y
TRANSCEIVE CIRCUITRY
63Y
64Y
67Y
68Y
CONTROLLER
30Y
33Y
38Y
DEVICE OPERATIONS SYSTEM
57
20C
44C
48C
57'
TRANSCEIVE CIRCUITRY
47C
45C
82C
DISPLAY
42C
CONTROLLER
43C
MODE
95C
LOCK
UN LOCK
TR
PANIC
91C
92C
93C
93C

Fig.1

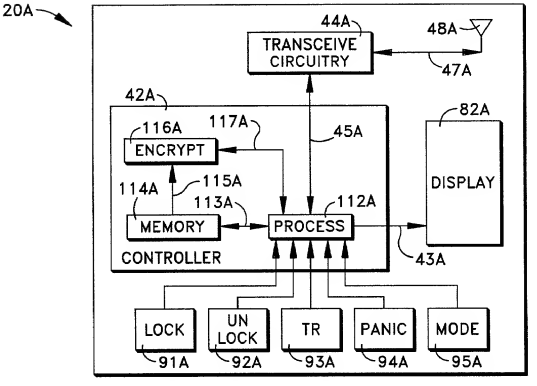
20A
44A
48A
TRANSCEIVE CIRCUITRY
47A
42A
116A
117A
45A
82A
ENCRYPT
114A
115A
113A
112A
DISPLAY
MEMORY
PROCESS
CONTROLLER
43A
LOCK
UN LOCK
TR
PANIC
MODE
91A
92A
93A
94A
95A

Fig.2

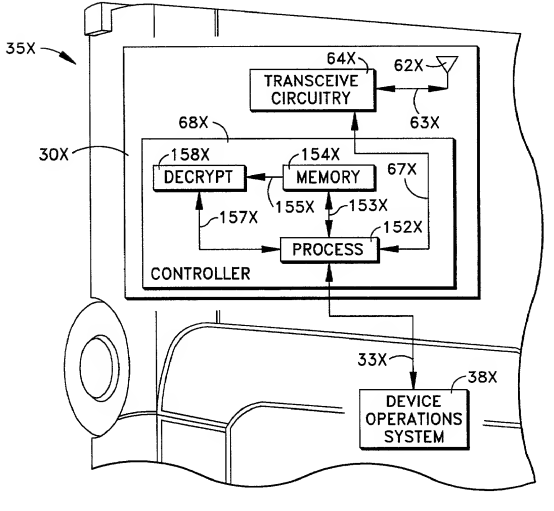
35X
64X
62X
TRANSCEIVE CIRCUITRY
63X
68X
30X
158X
154X
DECRYPT
MEMORY
67X
155X
153X
157X
152X
PROCESS
CONTROLLER
33X
38X
DEVICE OPERATIONS SYSTEM

Fig.3

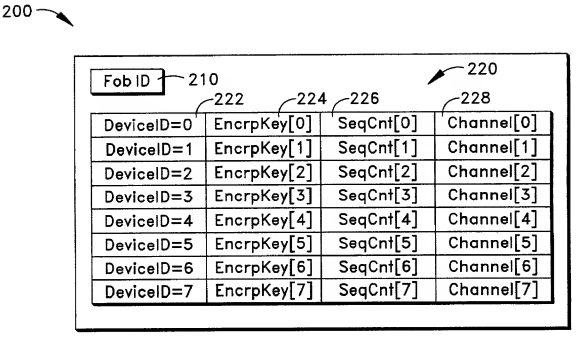
200
Fob ID
210
220
222
224
226
228
DeviceID=0
EncrpKey[0]
SeqCnt[0]
Channel[0]
DeviceID=1
EncrpKey[1]
SeqCnt[1]
Channel[1]
DeviceID=2
EncrpKey[2]
SeqCnt[2]
Channel[2]
DeviceID=3
EncrpKey[3]
SeqCnt[3]
Channel[3]
DeviceID=4
EncrpKey[4]
SeqCnt[4]
Channel[4]
DeviceID=5
EncrpKey[5]
SeqCnt[5]
Channel[5]
DeviceID=6
EncrpKey[6]
SeqCnt[6]
Channel[6]
DeviceID=7
EncrpKey[7]
SeqCnt[7]
Channel[7]

Fig.4

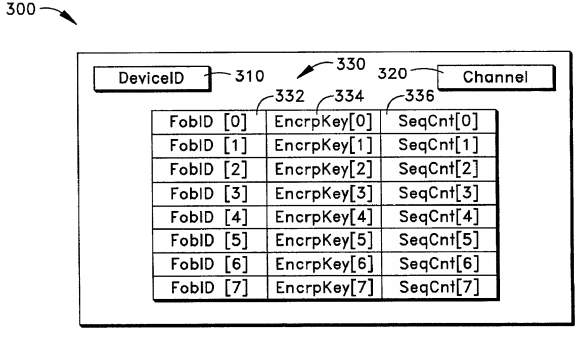
300
DeviceID
310
330
320
Channel
332
334
336
FobID [0]
EncrpKey[0]
SeqCnt[0]
FobID [1]
EncrpKey[1]
SeqCnt[1]
FobID [2]
EncrpKey[2]
SeqCnt[2]
FobID [3]
EncrpKey[3]
SeqCnt[3]
FobID [4]
EncrpKey[4]
SeqCnt[4]
FobID [5]
EncrpKey[5]
SeqCnt[5]
FobID [6]
EncrpKey[6]
SeqCnt[6]
FobID [7]
EncrpKey[7]
SeqCnt[7]

Fig.5

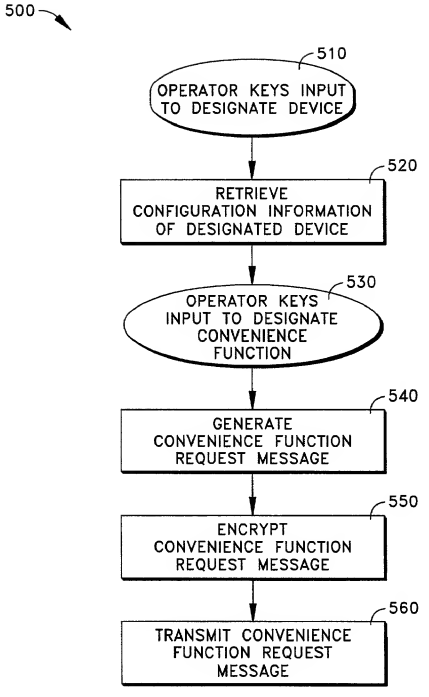
500
510
OPERATOR KEYS INPUT TO DESIGNATE DEVICE
520
RETRIEVE CONFIGURATION INFORMATION OF DESIGNATED DEVICE
530
OPERATOR KEYS INPUT TO DESIGNATE CONVENIENCE FUNCTION
540
GENERATE CONVENIENCE FUNCTION REQUEST MESSAGE
550
ENCRYPT CONVENIENCE FUNCTION REQUEST MESSAGE
560
TRANSMIT CONVENIENCE FUNCTION REQUEST MESSAGE

Fig.6

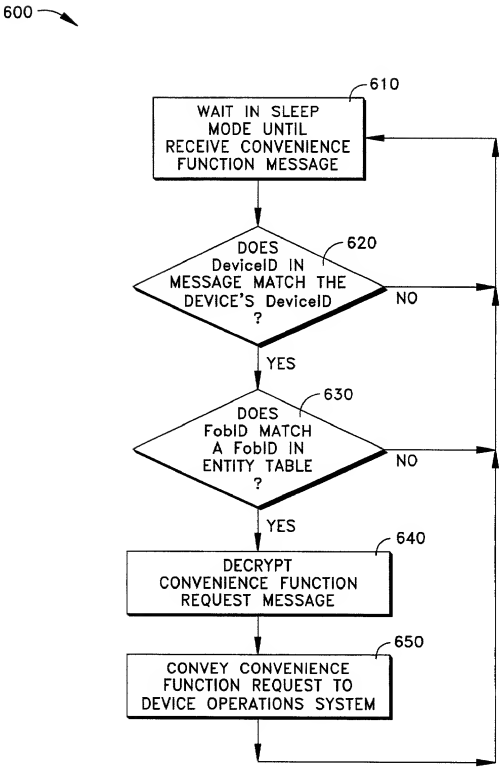
600
610
WAIT IN SLEEP MODE UNTIL RECEIVE CONVENIENCE FUNCTION MESSAGE
620
DOES DeviceID IN MESSAGE MATCH THE DEVICE'S DeviceID ?
NO
YES
630
DOES FobID MATCH A FobID IN ENTITY TABLE ?
NO
YES
640
DECRYPT CONVENIENCE FUNCTION REQUEST MESSAGE
650
CONVEY CONVENIENCE FUNCTION REQUEST TO DEVICE OPERATIONS SYSTEM

Fig.7

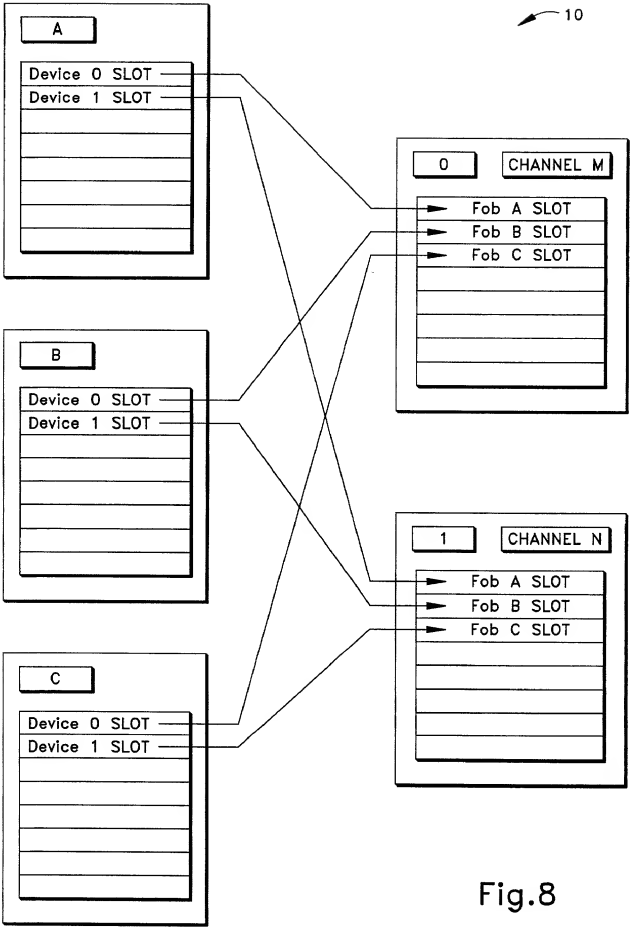
10
A
Device 0 SLOT
Device 1 SLOT
B
Device 0 SLOT
Device 1 SLOT
C
Device 0 SLOT
Device 1 SLOT
0
CHANNEL M
Fob A SLOT
Fob B SLOT
Fob C SLOT
1
CHANNEL N
Fob A SLOT
Fob B SLOT
Fob C SLOT

Fig.8